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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,657	09/18/2001	Andreas Kellner	DE000148	7508

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EXAMINER	
VO, HUYEN X	
ART UNIT	**PAPER NUMBER**
2626	
MAIL DATE	**DELIVERY MODE**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/954,657	KELLNER ET AL.	
	Examiner	Art Unit	
	Huyen X. Vo	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 5-8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al. (US 6415257) in view of Allinger (DE 19747745).

3. Regarding claims 1 and 7, Junqua et al. disclose a dialog system and method comprising processing units for

automatically speech recognition (*speech recognizer 12 in figure 1*),

natural language understanding (*elements 24 and 30 in figure1*),

generating visual system outputs (*col. 10 lines 65 to col. 11, lines 3 and/or element 36 of figure 1*),

deriving user models from determined details about a style of speech of user inputs (*the process of figure 7, training the new user using speech characteristics/style of the new user*); and

Junqua et al. fail to specifically disclose adaptation of system outputs in dependence on the derived user models, wherein the system outputs are adapted to the style of the speech of the user inputs including at least two of a colloquial language,

standard language, dialect. However, Allenger teach adaptation of system outputs in dependence on the derived user models, wherein the system outputs are adapted to the style of the speech of the user inputs including at least two of a colloquial language, standard language, dialect (*page 6, lines 15-16 shows speech recognition capability, and page 7, lines 1-32, outputs are adapted in content based on user's input; and the output language is in standard language and colloquial language, which is the defined by dictionary.com as "involving or using conversation"*).

Since the modified Junqua et al. and Allenger are analogous art because they are from the same field of endeavor, namely speech recognition, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Junqua et al. by incorporating the teaching of Allenger in order to provide shorter responses to a more experience user. This would reduce user's frustration, and hence improve the effectiveness of the system.

4. Regarding claim 8, Junqua et al. disclose a process for television-user dialog, comprising the steps of:

receiving user speech input (*element 10 in figure 1*);

processing the speech input using automatic speech recognition and natural language understanding (*elements 12 and 24 in figure 1*); and

defining at least one system output based on the speech input and a user model derived from details of the user style of speech inputs (*col. 2, lines 54 to col. 3, line 67,*

speech/speaker adaptation; and output response to the user if the input speech command is recognized and the correct response is found).

Junqua et al. fail to specifically disclose defining at least one system output based on the speech input and a user model derived from details of a style of the speech input, wherein the at least one system output in content is based on the style of the speech input including at least two of a colloquial language, standard language, dialect. However, Allenger teach defining at least one system output based on the speech input and a user model derived from details of a style of the speech input, wherein the at least one system output in content is based on the style of the speech input including at least two of a colloquial language, standard language, dialect (*page 6, lines 15-16 shows speech recognition capability, and page 7, lines 1-32, outputs are adapted in content based on user's input; and the output language is in standard language and colloquial language, which is the defined by dictionary.com as "involving or using conversation"*).

Since the modified Junqua et al. and Allenger are analogous art because they are from the same field of endeavor, namely speech recognition, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Junqua et al. by incorporating the teaching of Allenger in order to provide shorter responses to a more experience user. This would reduce user's frustration, and hence improve the effectiveness of the system.

5. Regarding claim 3, Junqua et al. further disclose a dialog system characterized in that the user models contain estimates for the reliability of recognition results derived from user inputs (col. 7, ln. 1-32, the score associated with each candidate represents the reliability of each recognized candidate).

6. Regarding claim 5, Junqua et al. further disclose a dialog system characterized in that fixed models of user stereotypes are used for forming the user models (col. 8, ln. 8-26, a speaker adaptation process).

7. Regarding claim 6, Junqua et al. further disclose a dialog system characterized in that user models are used which are continuously updated based on inputs of the respective user (col. 3, ln. 1-27, the system includes a usage log recording user's everyday uses of the system).

8. Regarding claim 11, Junqua et al. further disclose the process of Claim 8, wherein the step of defining comprises the step of: defining at least one system output based on the speech input and a user model which includes a familiarity level, wherein the system output is based on the familiarity level (*col. 3, lines 1-25, familiarity level is determined by how often and/or how long the user has used the system and that is specified in the usage log*).

9. Claims 2, 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al. (US 6415257) in view of Allinger (DE 19747745), as applied to claims 1 and 8, and further in view of Larsen (IEEE Publication).

10. Regarding claim 2, Junqua et al. further disclose a dialog system characterized in that in addition to the input modality to use user inputs by means of speech, at least a further input modality is provided (col. 3, ln. 35-44). Junqua et al. do not disclose a dialog system characterized in that the user models contain details about the respective use of the various input modalities by the user.

However, Larsen teaches a bi-modal application used in a dialog system, where a DTMF input mode is used if repeated recognition errors occur in the speech recognition mode (referring to APPLICATION SECTION on pages 66-67). The advantage of using the teaching of Larsen in Junqua et al. is to enable the system to take appropriate actions to process the input signal to achieve high accuracy.

Since Junqua et al. and Larsen are analogous art because they are from the same field of endeavors it would have been obvious to one of ordinary skill in the art at the time of invention to modify Junqua et al. by incorporating the teaching of Larsen in order to enable the system to take appropriate actions to process the input signal to achieve high accuracy.

The modified Junqua et al. still fail to disclose a dialog system characterized in that the user models contain details about the respective use of the various input modalities by the user. However, it would have been obvious to one of ordinary skill in

the art at the time of invention to readily realize that both DTMF and speech input modes, as taught by Larsen, are different and both are represented by two distinct signals. Therefore, the system would have distinguished and processed these two signals differently in order to enhance the system's efficiency and reliability.

11. Regarding claim 4, Junqua et al. do not disclose a dialog system characterized in that in dependence on the estimates, system responses are generated which prompt the respective user to use such input modalities for which high estimate values were determined and/or which prevent the respective user from using input modalities for which low reliability values were determined.

However, Larsen teaches a dialog system characterized in that in dependence on the estimates, system responses are generated which prompt the respective user to use such input modalities for which high estimate values were determined and/or which prevent the respective user from using input modalities for which low reliability values were determined (referring to APPLICATION SECTION on pages 66-67). The advantage of using the teaching of Larsen in the modified Junqua et al. is to allow the system to switch to a different input mode to achieve high recognition accuracy.

Since the modified Junqua et al. and Larsen are analogous art because they are from the same field of endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Junqua et al. by incorporating the teaching of Larsen in order to allow the system to switch to a different input mode to achieve high recognition accuracy.

12. Regarding claim 10, Junqua et al. further teach the process of Claim 8, wherein the step of defining comprises the step of: defining at least one system output based on the speech input and a user model, wherein the system output is based on the likely input modality (*col. 3, lines 1-67*). Junqua et al. fail to specifically disclose a user model, which includes a likely input modality for a current prompt. However, Larsen teaches a user model, which includes a likely input modality for a current prompt (*referring to APPLICATION SECTION on pages 66-67*).

Since Junqua et al. and Larsen are analogous art because they are from the same field of endeavors it would have been obvious to one of ordinary skill in the art at the time of invention to modify Junqua et al. by incorporating the teaching of Larsen in order to enable the system to take appropriate actions to process the input signal to achieve high accuracy.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Junqua et al. (US 6415257) in view of Allinger (DE 19747745), as applied to claim 8, and further in view of Toyama et al. (US 6502082).

14. Regarding claim 12, Junqua et al. fails to specifically disclose the process of claim 8 further comprising the steps of: receiving a user face image: and determining a degree of despair based on the user face image (*col. 1, lines 38-54*); wherein the step of defining comprises the step of: defining at least one system output based on the

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8/13/2007